

USES FOR COMPOST

Compost contains nutrients, but is not a substitute for fertilizers. Compost holds nutrients in the soil until plants can use them, loosens and aerates clay soils, and retains water in sandy soils.

- ✓ **SOIL AMENDING**...Mix 2 to 5 inches of compost into vegetable and flower gardens each year before planting.
- ✓ **MULCHING**...Spread an inch or two of compost around annual flowers and vegetables, and up to 6 inches around trees and shrubs. Do not pile it against stems or trunks.
- ✓ **POTTING MIX**...Add one part compost to two parts potting soil, or make your own mixture with equal parts compost and sand or perlite.
- ✓ **TOP DRESSING**...Mix fine sifted compost with sand, and sprinkle evenly over lawns.

TROUBLESHOOTING

SYMPTOMS	PROBLEMS	SOLUTIONS
The compost has a bad odor	Not enough air; pile too wet	Turn it; add coarse dry materials such as straw, corn stalk, etc.
The center of the pile is dry	Not enough water; too much woody coarse material	Turn and moisten materials; add fresh green wastes
The pile is damp & warm in the middle but nowhere	Too small	Collect more material and mix the old ingredients

For information call the City of Eugene at 682-5542 or visit: www.eugenerecycles.org or call Lane County Extension at 682-7320.

HOME COMPOSTING In Eugene



Turning Garbage into Gold

As much as 30 percent of the waste sent to the Lane County landfill is made up of organic materials. That's quite a burden on our landfill. And a waste of a usable resource.

By composting at home, you can help relieve that burden and put your yard and garden waste back to work for the earth.

THE ESSENTIALS OF COMPOSTING

Thanks to simple decomposition, nature "recycles" plant wastes into a rich soil additive called compost. Even the first-time composter can make good quality compost. Without getting too technical, here's a review of what's involved.



MATERIALS Anything that was once alive will naturally decompose. However, some organic wastes should not be composted.

DO COMPOST THESE ITEMS

Grass clippings	Leaves
Flowers	Chopped twigs
Annual weeds	Straw
Fruit and vegetables	Wood ash
Coffee & tea filters	Shredded paper
Egg shells	Sawdust

DO NOT COMPOST THESE ITEMS

Diseased plants	Dairy products
Weeds with seeds	Grease, cooking oil
Invasive weeds like quack grass and morning glory	or oily foods
Charcoal ash	Peanut butter
	Meat or fish
	Pet feces

All organic materials contain carbon and nitrogen in varying ratios. Carbon in brown leaves and woody wastes provides energy, while nitrogen in green grass and vegetable scraps provides protein for cell development. Alternating layers of brown and green materials can be a useful way to add materials to a pile, but a complete mixing of ingredients is preferable for the composting process.



BIOLOGY Bacteria start the process of decaying organic matter. They are the first to break down plant tissue and also the most numerous and effective composters. Fungi and protozoans soon join the bacteria and, somewhat later in the cycle, centipedes, millipedes, beetles and worms finish what the bacteria started.



SURFACE AREA The more surface area the micro-organisms have to work on, the faster the materials are decomposed.

Chopping wastes with a shovel or machete, or using a chipper/shredder or lawnmower to shred materials will speed composting.

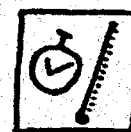


VOLUME A large compost pile will insulate itself, trapping the heat generated by microbial activity. A 3' by 3' by 3' pile is considered the minimum size for hot, fast composting. Piles wider or taller than 5 ft. don't allow enough air to reach the center of the pile.



MOISTURE & AERATION

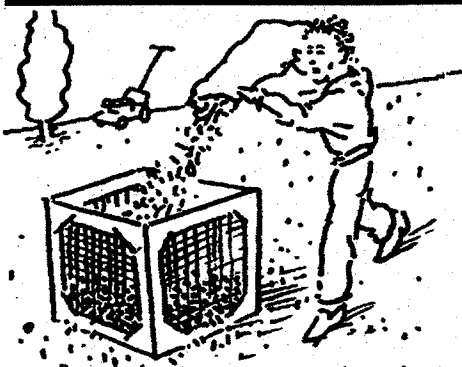
Most life on earth needs a certain amount of water and air to survive. The microbes in the compost pile function best when the materials are as damp as a wrung-out sponge and have many air passages. Extremes of sun or rain can adversely affect this moisture balance in your pile. The air in the pile is usually used up faster than the moisture, so the materials should be "turned" or mixed occasionally to add air that will sustain high temperatures and control odor.



TIME & TEMPERATURE

The hotter the pile, the faster the composting. The most efficient decomposing bacteria thrive in temperatures between 110F and 160F. If you achieve a good balance of carbon and nitrogen, provide lots of surface area within a large volume of material, and maintain adequate moisture and aeration, the temperature will rise over several days.

WHICH COMPOSTING METHOD IS RIGHT FOR YOU?



■ COMPOST HOLDING SYSTEMS

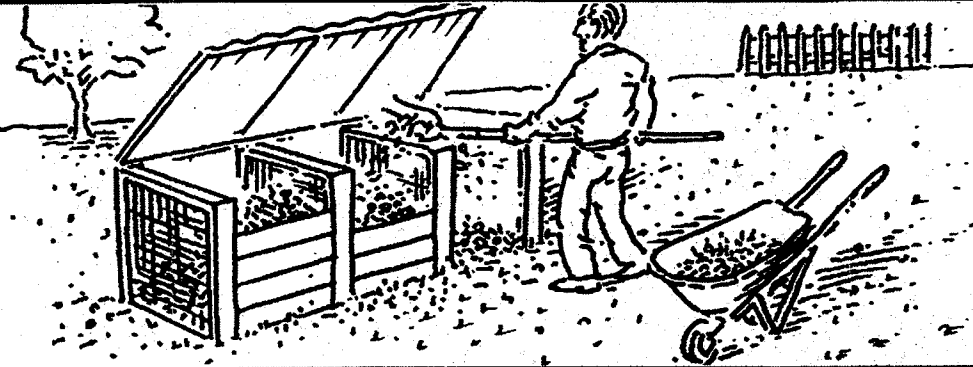
While bins are not technically needed, they keep piles neat and away from pests. *Holding bins can be made from wire mesh, wooden pallets or wood and wire. Many types of manufactured holding bins are available for purchase through garden stores and catalogs.*

- Place the bin in a convenient location. Sun or shade levels are not critical.
- Add debris to bin, and water as needed to maintain proper moisture. Materials should be as damp as a wrung-out sponge.
- Harvest finished compost from the bottom or inside of the pile once or twice a year.
- Chopping or shredding materials, layering a balance of high-carbon and high-nitrogen materials, and keeping up good moisture and aeration will all speed the process.

Visit Eugene's Compost Education Gardens:
The River House- 301 N. Adams St.
The Grassroots Garden- 1465 Coburg Rd.
Call 682-5542 for workshop information.

Thanks to the Cities of Seattle, Portland and San Francisco's Recycling Programs and the San Francisco League of Urban Gardeners for information and graphics.

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Building & Permit Services
Solid Waste and Recycling Program
99 W. 10th Ave., Eugene, OR 97401



● COMPOST TURNING SYSTEMS

These are designed to make hot, fast compost piles. Hot piles require some effort, but the compost is typically of a higher quality, because the high temperatures kill weed seeds and many plant diseases. These systems are most appropriate for gardeners with a large volume of yard waste and the desire to make a high quality compost. *A series of 2 or 3 bins can be made of wood, wood and wire, pallets or masonry blocks. Plans are available for residents who call 682-5542 and request copies.*

- Mix alternating layers of brown (high-carbon) and green (high-nitrogen) materials.
- Dampen materials until they feel like a wrung-out sponge.
- Turn and mix the materials into the next bin after the pile temperature peaks and drops substantially (approximately 4-7 days).
- Dampen the materials if they feel dry and add more high-nitrogen material if heating is not occurring.
- Turn again after the temperature peaks and begins to cool (4-7 days).
- After the compost cools for a few weeks, it should be ready to use.



▼ DIRECT LAND APPLICATION

This is the simplest way to recycle organic materials at home. These methods of composting use organic wastes in their original form.

GRASSCYCLING saves time spent bagging and can reduce annual fertilizer needs.

- ▼ Mow often, leaving clippings on the lawn. Never cut more than 1/3 of the grass length.

MULCHING enriches the soil, suppresses weeds, conserves moisture, and protects plants from the cold.

- ▼ Use grass clippings, leaves, straw, manure, sawdust, bark and wood chips as mulch around trees, shrubs and other plantings.
- ▼ In annual and vegetable gardens, use only non-woody mulches (i.e., grass clippings and leaves) that break down quickly.

SOIL INCORPORATION means simply burying organic materials right into the soil.

- ▼ Grass clippings, leaves and soft garden wastes can be tilled directly into garden beds.
- ▼ To bury vegetable and fruit scraps, dig a hole, chop and mix scraps in with the soil and cover with at least 8 inches of soil. If desired, use as garden space the next year.



* VERMICULTURE SYSTEMS

Worm bins are ideally suited for individuals without room for outdoor compost bins. Using populations of redworms to make compost from vegetable and fruit scraps is easy. Worms can eat up to half their body weight in food scraps every day and produce a humus rich casting as a waste product.

- * Plastic storage bins with a tight fitting lid make ideal worm bins. Drill holes in the lid for air circulation purposes. Drain holes may be required if excess moisture develops.
- * Fill your worm bin with moist beddings: brown leaves, shredded newspaper or cardboard, straw or peat moss. Add a pound or more of redworms (from a compost pile or worm supplier).
- * Rotate the burial of fruit and vegetable waste throughout the bin.
- * Every 6 to 8 months push the old bedding and decomposing scraps to one side of the bin, rebed the empty side, and start burying food wastes in the fresh bedding.
- * Allow composted wastes to cure for a month before harvesting.
- * For information, refer to *Worms Eat My Garbage* by Mary Appelhof (available at the public library and some garden stores).

